THE GREEN ALDERS OF NEW ENGLAND.

M. L. FERNALD.

Alnus viridis, DC. (*A. Alnobetula*, K. Koch) is the type of a subgenus which is represented in alpine or cool situations in nearly all parts of the northern hemisphere. The European shrub, *A. viridis*, a species of mountain districts, has glabrous twigs, thinnish but finally firm leaves which are glabrate and pale beneath and in maturity 3 to 6 cm. long, the mature fertile aments 0.8 to 1.3 cm. long, 5 to 9 mm. thick. In northeastern America it is represented by two shrubs, both of which have been generally referred to it.

A. CRISPA, Pursh, Fl. 623 (1814). *Betula crispa*, Aiton, Hort. Kew. iii. 339 (1789). This is the nearest ally of *A. viridis* in America, but differs from the European shrub in its much firmer thick leaves which are more rugose and with greener under surfaces. It occurs from Labrador and Hudson Bay south to the Alpine summits of Mts. Katahdin, Washington, Mansfield, and Whiteface (New York). For the identification of our alpine shrub I am indebted to Mr. Edmund G. Baker of the British Museum of Natural History, who has obligingly compared material of this and of the following shrub with the original of Aiton's *Betula crispa* which proves to be essentially like the firm-leaved glabrate shrub of Mt. Katahdin.

A. mollis, n. sp. Young branches and peduncles pubescent: mature leaves 4.5 to 10 cm. long, closely serrate with sharp unequal teeth, and permanently covered beneath with a soft short plush-like pubescence: mature fertile aments 1.2 to 2 cm. long, 0.9 to 1.2 cm. thick.—Cold bogs, swamps, exposed rocky banks, etc., Newfoundland to Lake Winnipeg, south to southern Maine and New Hampshire, western Massachusetts, New York and Lake Superior. Specimens examined: —

NEWFOUNDLAND, near Topsail, Conception Bay, August, 1901 (*Howe & Lang*, no. 1342); St. John's, August 1, 1894 (*Robinson & Schrenk*, no. 24): NEW BRUNSWICK, Kent County, 1870 (*Fowler*): NOVA SCOTIA, Point Pleasant, June 18, 1884 (*Macoun*); Pictou, July, 1901, Digby, July, 1901, Yarmouth, June, 1901 (*Howe & Lang*, nos. 552, 273, 46): MAINE, St. Francis, Aug. 17, 1893—no. 98, Ashland, June 13, 1898—no. 2445, Island Falls, Aug. 26, 1897, Blanchard, Sept. 4, 1897, Orono, May 24 and Aug. 18, 1890, Cutler, July 1, 1902, Southport, Aug. 1, 1894 (*M. L. Fernald*); Dover, May and July 1, 1896 (*G. B. Fernald*, nos. 5, 45, 62, 65); Manchester (*Scribner*); Northport (*Furbish*): NEW HAMPSHIRE, White

Mountains (*Tuckerman*); Crawford Notch, 1888 (*Swan*); Oakes Gulf, Mt. Washington, alt. 4500 ft., June 29, 1898 (*Williams*); Ammonusuc River, September, 1842 (*A. Gray*): VERMONT, Brookline June 30, 1895 (*Grout*): MASSACHUSETTS, Buckland, July 26, 1903 (*F. F. Forbes*): ONTARIO, Nepigon, September, 1896 (*G. S. Miller*); near Sault Ste. Marie, 1848 (*Loring*); Silver Islet, August. 1871 (*Gillman*): MANITOBA, Lake Winnipeg, 1857 (*Bourgeau*).— Occasional specimens from alpine situations have the small fertile aments of *A. crispa*, but ordinarily this shrub of temperate areas is very constant in its characters and is quite unlike any Old World shrubs of the *viridis* group known to the writer.

GRAY HERBARIUM.

AN INTERESTING SPECIMEN OF ARISÆMA TRIPHYLLUM, TORR., the common "Jack-in-the-Pulpit," was recently brought to me by a school-boy. It showed a peculiar malformation, the inflorescence being made up of two spathes and three spadices. The spathes were each

perfectly formed and were connected at the base where one overlapped and enclosed the other; but the spadices were each much wider throughout than is normal, and they were also deeply grooved and ridged lengthwise, and united at the base where the spathes scarcely clasped around them.

Whether or not the plant showed any other tendency to abnormal growth I am unable to say, for the "flower," snapped off boy fashion, is all that I have been able to procure. Probably some readers of RHODORA have seen monstrous growths of *Arisæma triphyllum* in which there have been two spathes with one spadix, as noted by Prof. W. W. Bailey, Bot. Gaz. ix, 177, or vice versa, but I doubt if anyone has before come across a specimen showing so much divergence from the normal form as is found here in the specimen illustrated. — ALICE G. CLARK, East Weymouth, Massachusetts.